

In the Claims

Please amend the claims as follows:

23. (currently amended) Method A method for conditioning cooled used moulding sand retaining moulding sand binder in a mixer (1), wherein the cooled used moulding sand is heated to at least a minimum temperature, moisturized by providing water or water vapor through holes in an agitator and subsequently cooled in the mixer from the minimum temperature using the effect of a vacuum in the mixer.
24. (currently amended) Method A method according to Claim 23, wherein a desired minimum temperature T_{min} is determined, the starting temperature T_{ist} of the moulding sand is determined, and the moulding sand is heated when $T_{ist} < T_{min}$.
25. (currently amended) Method A method according to Claim 23, wherein the cooled used moulding sand is heated before it is placed in the mixer (1).
26. (currently amended) Method A method according to Claim 23, wherein the cooled used moulding sand is heated in combination with unused moulding sand to at least the minimum temperature in the mixer (1) prior to application of the vacuum.
27. (currently amended) Method A method according to Claim 23, wherein the moulding sand is heated with the aid of hot air or microwaves.
28. (currently amended) Method A method according to Claim 23, wherein the moulding sand is heated by addition of hot water.
29. (currently amended) Method A method according to Claim 23, wherein the moulding sand is heated by addition of hot water vapour (12).

30. (currently amended) Method A method according to Claim 29, wherein the temperature of the moulding sand is increased to at least the minimum temperature T_{min} by addition of hot water vapour (12).

31. (currently amended) Method A method according to Claim 23, wherein processing water (4) is added to obtain a desired minimum moisture.

32. (currently amended) Method A method according to Claim 30, wherein the moisture content of the moulding sand is sensed (14) enough water (4) is added as is necessary for cooling of the moulding sand in a vacuum and so that a quantity of water remains in the moulding sand for the moulding sand to obtain a desired moisture content in finished sand.

33. (currently amended) Method A method according to Claim 29, wherein water in vapour or liquid form added for heating the moulding sand is at least in part additionally used for moistening the moulding sand.

34. (currently amended) Method A method according to Claim 33, wherein excess water in the moulding sand is regulated by evaporation in a vacuum to a desired final moisture.

35. (currently amended) Method A method according to Claim 29, wherein the amount of water vapour or water added to the moulding sand to heat it is determined dependent upon the temperature T_{ist} of the moulding sand and the desired minimum temperature T_{min} .

36. (currently amended) Method A method according to Claim 29, wherein the amount of water vapour added to the moulding sand to heat it is obtained by setting a pressure in the mixer such that a boiling temperature of the water at the set pressure corresponds to the desired

minimum temperature, and water vapour is supplied until the pressure increases or the temperature in a suction line (6) shows an accelerated increase.

37. (currently amended) Method A method according to Claim 23, wherein hot water or hot water vapour is supplied to the mixer below the surface of the moulding sand to heat the sand to at least the minimum temperature.

38. (currently amended) Method A method according to Claim 23, wherein moulding sand below the minimum temperature is heated by mixing with hot moulding sand.

39. (currently amended) Apparatus for conditioning moulding sand comprising a mixing container, a rotatable mixing agitator and a mixing agitator drive suitable for mixing moulding sand in the mixing container, a mixing container, means for vacuum sealing the mixing container, means for providing a vacuum in the mixing chamber, means for feeding components to be mixed to the mixer, means for supplying hot water or hot water vapour to components in the mixing chamber through a plurality of holes in the agitator facing away from a direction of rotation of the agitator, valves for stopping the flows of hot water and vapour to the mixing chamber, means for vacuum sealing the mixing container, means for providing a vacuum in the mixing chamber after the flows are stopped to cool the contents of the mixing chamber and remove moisture by vacuum evaporation, and means for removing mixed components from the mixing chamber.

40. (currently amended) Apparatus according to Claim 39, wherein the means for adding hot water vapour or hot water comprises the agitator providing a vacuum can provide a vacuum to below the vapor pressure of water.

41. (currently amended) Apparatus according to Claim 40, wherein the agitator includes apertures through which hot water vapour or hot water is provided during agitator rotation comprises fins, blades or a wall scraper.
42. (previously presented) Apparatus according to Claim 40, wherein the mixing container does not rotate, and orifices are provided through a wall of the container for the addition of hot water vapour and/or water.
43. (currently amended) Apparatus according to Claim 39, wherein the mixing container rotates and a conduit is provided for the addition of hot water vapour to the mix.
44. (currently amended) Apparatus A method according to Claim 39 23, wherein the conduit is provided in a wall scraper vacuum is below the vapor pressure of water.
45. (cancelled)